

U.S. Application No.: 09/438,759
AMENDMENT D AND REQUEST FOR TELEPHONE INTERVIEW

Attorney Docket: 2368/098

*rigid
cannula*

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IN THE CLAIMS

Claims 1-11 (canceled)

12. (Currently amended) A continuously conductive unipolar cannula for anesthesia, comprising:

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening in the area of the sharp tip (14) dimensioned for passage of a catheter,

a body part (18) provided at the proximal end of the cannula tube (10), the body part (18) including an inlet funnel shaped opening (32, 34) axially aligned with the cannula tube (10) adapted for guiding the catheter for introduction into the proximal end of the cannula tube (10), and

a connector (22, 24, 26) electrically connected to the cannula tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said cannula tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the cannula tube (10).

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13. (Original) A unipolar cannula according to Claim 12, wherein an electrical connection is formed between the electrical connector and cannula tube by an electrical contact pressed against the circumference of the cannula tube (10), to which contact a wire (24) of a multi-strand connector (26) is soldered.

14. (Original) A unipolar cannula according to Claim 13, wherein the wire (24) lies axially parallel against the cannula tube (10), and the multi-strand conductor (26) runs radially through the body part (18) towards the outside.

15. (Original) A unipolar cannula according to Claim 12, wherein the proximal end of the cannula tube (10) is provided co-axially in the body part (18), wherein a ring gap is formed between (a) the proximal end of the cannula tube (10) and the thereto connected electrically contacting connector (22, 24) and (b) an inner wall of the body part (18), and wherein said ring gap is filled with plastic (30).

16. (canceled)

17. (Original) A unipolar cannula according to Claim 12, wherein the proximal end of the body part (18) is a Luer-lock connection (34).

18. (Original) A unipolar cannula according to Claim 12, wherein the electrically exposed end area (16) of the distal tip (14) of the cannula tube (10) has a length of maximally 1mm.

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19. (Currently amended) A continuously conductive unipolar cannula for anesthesia, comprising:

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a tip (14) and an exit opening in the area of the tip (14) dimensioned for passage of a catheter,

a body part (18) provided at the proximal end of the cannula tube (10), the body part (18) including an inlet funnel shaped opening (32, 34) axially aligned with the cannula tube (10) adapted for guiding the catheter for introduction into the proximal end of the cannula tube (10), and

a connector (22, 24, 26) electrically connected to the cannula tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said cannula tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the cannula tube (10);

wherein the distal tip (14) of the cannula tube (10) is a facet cut (12).

20. (Original) A unipolar cannula according to Claim 19, wherein the facet cut (12) is angled at an angle of approximately 45° to the axis of the cannula tube (10).

21. (Original) A unipolar cannula according to Claim 12, wherein the distal tip (14) of the cannula tube (10) is formed as a

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closed conically arched tip with an exit opening (44) provided along the side of the cannula tube proximally behind this tip.

22. (Original) A unipolar cannula according to Claim 21, wherein a ramp (46) is formed on the inside of the distal end of the cannula tube (10), adapted to guide a catheter toward the exit opening on the side of the cannula.

23. (Currently amended) A continuously conductive unipolar cannula for anesthesia, comprising:

a steel electrically conductive cannula tube (10) including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening (12, 44) in the area of the tip (14) dimensioned for passage of a catheter,

a body part (18) provided at the proximal end of the cannula tube (10), the body part (18) including an inlet funnel shaped opening (32, 34) axially aligned with the cannula tube (10) for guiding a catheter for introduction into the proximal end of the cannula tube (10), and

a connector (22, 24, 26) electrically connected to the cannula tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said cannula tube (10) has an electrically insulated outer covering extending from the body part (18) out to the tip (14) and which leaves about 1mm of the tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the cannula tube (10).

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24. (Previously presented) A unipolar cannula as in claim 23, wherein said cannula tube tip is a facet cut tip.

25. (Previously presented) A unipolar cannula as in claim 23, wherein said cannula tube tip is a Sprötte tip.

26. (Currently amended) A continuously conductive unipolar cannula for anesthesia, consisting of:

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening in the area of the sharp tip (14) dimensioned for passage of a catheter,

a body part (18) provided at the proximal end of the cannula tube (10), the body part (18) including an inlet funnel shaped opening (32, 34) axially aligned with the cannula tube (10) adapted for guiding the catheter for introduction into the proximal end of the cannula tube (10), and

a connector (22, 24, 26) electrically connected to the cannula tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said cannula tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the cannula tube (10).